

Appl. No. 10 520 571

Amtd. dated June 13, 2006

Reply to Office action mailed December 13, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently amended). A flame retardant thermoplastic resin composition comprising:

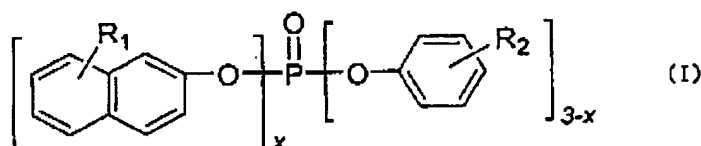
- (A) 45 to 95 parts by weight of a thermoplastic polycarbonate resin;
- (B) 1 to 50 parts by weight of a vinyl graft copolymer prepared by graft-polymerizing (B-1) 5 to 95 parts by weight of a monomer mixture comprised of (B-1.1) 50 to 95 by weight of at least one of styrene, α -methylstyrene, halogen- or alkyl-substituted styrene, C_{1-8} methacrylic acid alkyl ester, or C_{1-8} acrylic acid alkyl ester and (B-1.2) 5 to 50 parts by weight of at least one of acrylonitrile, methacrylonitrile, C_{1-8} methacrylic acid alkyl ester, C_{1-8} acrylic acid alkyl ester, maleic acid anhydride, or C_{1-4} alkyl- or phenyl N-substituted maleimide onto (B-2) 5 to 95 parts by weight of a rubber polymer selected from the group consisting of butadiene rubber, acryl rubber, ethylene-propylene rubber, styrene-butadiene rubber, acrylonitrile-butadiene rubber, isoprene rubber, copolymer of ethylene-propylene-diene (EPDM), polyorganosiloxane-polyalkyl (meth)acrylate rubber complex and a mixture thereof;
- (C) 0 to 50 parts by weight of a vinyl copolymer or a mixture of vinyl copolymer prepared from (C-1) 50 to 95 parts by weight of at least one of styrene, α -methyl styrene, halogen or alkyl substituted styrene, C_{1-8} methacrylic acid alkyl ester or C_{1-8} acrylic acid alkyl ester and (C-2) 5 to 50 parts by weight of at least one of acrylonitrile, methacrylonitrile, C_{1-8} methacrylic acid alkyl ester, C_{1-8} acrylic acid alkyl ester, maleic acid anhydride, or C_{1-4} alkyl or phenyl N-substituted maleimide;

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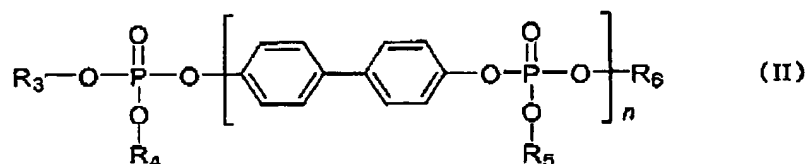
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(D) 1 to 30 parts by weight of a mixture of organic phosphorous compounds comprising (D-1) 5 to 95 parts by weight of a monomeric phosphoric acid ester compound represented by the following Formula (I) or a mixture thereof and (D-2) 95 to 5 parts by weight of an oligomeric phosphoric acid ester compound represented by the following Formula (II) or a mixture thereof, per 100 parts by weight of the sum of (A), (B) and (C):



wherein R_1 and R_2 are independently hydrogen or a C_{1-5} alkyl group and x is 0 or an integer from 1 to 3,



wherein R_3 , R_4 , R_5 and R_6 are independently a C_{6-20} aryl group or an alkyl-substituted C_{6-20} aryl group, respectively, and n is an integer representing the number of repeating units from 1 to 5, the average value of n in the mixture of oligomeric phosphoric acid ester is 1 to 3; and

(E) 0.05 to 5.0 parts by weight of a fluorinated polyolefin resin with average particle size of 0.05 to 1,000 μm and density of 1.2 to 2.3 g/cm^3 , per 100 parts by weight of (A)+(B)+(C).

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Claim 2 (Original). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said R_1 and R_2 are independently hydrogen or alkyl group in which alkyl is methyl, ethyl, isopropyl or t-butyl.

Claim 3 (Previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said R_3 , R_4 , R_5 and R_6 are independently phenyl group, naphthalene group, or alkyl-substituted phenyl group in which alkyl is methyl, ethyl, isopropyl and t-butyl.

Claim 4 (Original). A molding article produced from the flame retardant thermoplastic resin composition as defined in claim 1.

Claim 5 (New) A flame retardant thermoplastic resin composition comprising:

(A) 45 to 95 parts by weight of a thermoplastic polycarbonate resin;

(B) 1 to 50 parts by weight of a vinyl graft copolymer prepared by graft-polymerizing

(B-1) 5 to 95 parts by weight of a monomer mixture of (B-1.1) 50 to 95 by weight of at least one of styrene, α -methylstyrene, halogen- or alkyl-substituted styrene, C_{1-8} methacrylic acid alkyl ester, or C_{1-8} acrylic acid alkyl ester and (B-1.2) 5 to 50 parts by weight of at least one of acrylonitrile, methacrylonitrile, C_{1-8} methacrylic acid alkyl ester, C_{1-8} acrylic acid alkyl ester, maleic acid anhydride, or C_{1-4} alkyl- or phenyl N-substituted maleimide onto (B-2) 5 to 95 parts by weight of a rubber polymer selected from the group consisting of butadiene rubber, acryl rubber, ethylene-propylene rubber, styrene-butadiene rubber, acrylonitrile-butadiene rubber, isoprene rubber, copolymer of ethylene-propylene-diene (EPDM), polyorganosiloxane-polyalkyl (meth)acrylate rubber complex and a mixture thereof;

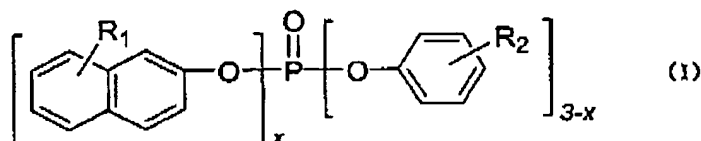
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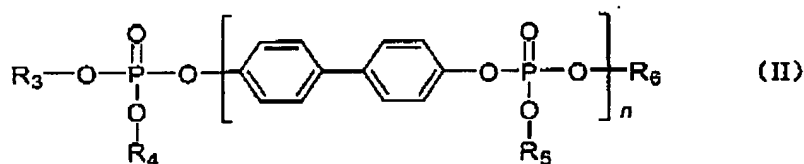
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(C) 0 to 50 parts by weight of a vinyl copolymer or a mixture of vinyl copolymer prepared from (C-1) 50 to 95 parts by weight of at least one of styrene, α -methyl styrene, halogen or alkyl substituted styrene, C_{1-8} methacrylic acid alkyl ester or C_{1-8} acrylic acid alkyl ester and (C-2) 5 to 50 parts by weight of at least one of acrylonitrile, methacrylonitrile, C_{1-8} methacrylic acid alkyl ester, C_{1-8} acrylic acid alkyl ester, maleic acid anhydride, or C_{1-4} alkyl or phenyl N-substituted maleimide;

(D) 1 to 30 parts by weight of a mixture of organic phosphorous compounds (D-1) 5 to 95 parts by weight of a monomeric phosphoric acid ester compound represented by the following Formula (I) or a mixture thereof and (D-2) 95 to 5 parts by weight of an oligomeric phosphoric acid ester compound represented by the following Formula (II) or a mixture thereof, per 100 parts by weight of the sum of (A), (B) and (C):



wherein R_1 and R_2 are hydrogen and x is 1 or 2,



wherein R_3 , R_4 , R_5 and R_6 are phenyl groups and n is an integer representing the number of repeating units from 1 to 5, the average value of n in the mixture of oligomeric phosphoric acid ester is 1 to 3; and

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(E) 0.05 to 5.0 parts by weight of a fluorinated polyolefin resin with average particle size of 0.05 to 1,000 μm and density of 1.2 to 2.3 g/cm^3 , per 100 parts by weight of (A)+(B)+(C).

Claim 6 (New). A molding article produced from the flame retardant thermoplastic resin composition as defined in claim 5.